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TRANSFORMATION GENERATED ENTERPENURSHIP IN CROATIA: IS THERE A DEFICIT

INTRODUCTION

From its beginning, economics has largely been about entrepreneurs and their entrepreneurship. Richard Cantillon in the 17th century recognized this in his vision of society by identifying a class of entrepreneurs as those individuals that assumed a risk in the face of uncertainty (latter Knight, Shacle and others, heavily stressed this aspect). Joseph Schumpeter made entrepreneurs the agents of 'creative destruction' and closely related their activity to the processes of innovation. More recently Kirzner stress's the entrepreneurs perception and judgment that together with their ability to discovery opportunities enables arbitrage in markets and the efficient allocation of resources. The entrepreneur's special status has been underlined not only in economic theory, but also in business economics, economic history, sociology, psychology etc. (for an overview see Hebert and Link 1998).

While the importance of the entrepreneurs and entrepreneurship was never denied in economics, it is surprising to what extent this central agent was seen as a 'black box'. Mainstream neoclassical economics and general equilibrium theory still have that approach, indeed by posturing complete markets and perfect foresight have striped the entrepreneur of some if of his most interesting endeavors but not denied him a central place. Today's economic theory, even though mainstream neoclassical economics has been rightly criticized of reducing entrepreneur to perfectly rational economic 'black box' man (see a standard microeconomic textbook such as Mass-Colell et al 1995) , keeps the this pro-entrepreneurship spirit alive. It provides the entrepreneur and his entrepreneurship with two extremely important roles and as the dominant actor on the supply side. Driven by the profit motive and following the Hayekian (i.e. Neo-Austrian) view he is thus seen first as the central driver of arbitrage eventually leading the economy to its equilibrium and keeping it there. Second, following Schumpeterian dynamics he is posited as the agent of change, innovation and technological progress and thereby the engineer of the fundamental increase in productivity that determines the fate of nations.

After decades of typical neglect, both by economists and policy makers (see Swoboda 1984 and Barreto 1989) in the 1970s developed countries' policy discourses' rediscovered' entrepreneurship in two contexts. The first was derived from the pronounced connection of entrepreneurship with the new firms' creation, the SMEs in connection to growth and employment, local/regional economies' rejuvenation, national competitiveness. The second took a different tack and derived the entrepreneurs' importance from social concerns related to eradication of poverty through self-employment for example, too. (see f.e. Audretsch 2002; Binks and Vale 1990; Best 1990; Kirchoff 1994; Wennekers and Thurik 1999).

The special role of the entrepreneurs was discovered in another context as well. This was the context of post-socialist transformation where the role of entrepreneurship was fully recognized. Post-socialist transformations of the 1990s, with radical reforms leading to overall marketization, privatization and liberalization have created economic circumstances in which entrepreneurship's role became fundamental and essential. This was true not only in the economic aspects of the process but also in the social and political ones as well. In the transformation, entrepreneurs became major agents of economic change, wealth creation and growth who replaced that role over-present state. A proper understanding of their activity has been recognized by many as fundamentally important for understanding the transformation itself and the ensuing post-transformation period (see for example Blanchard 1997).

Just as this special importance of entrepreneurship and entrepreneurs is true for the general, understanding of the process of transformation it is also true for understanding the specific country policies and contexts. In this paper, the specific Croatian case study is examined. The Croatian experience may be interesting for a number of reasons. The general ones that come to mind first are size (the case of a small economy as most economies facing transformation are) and level of development (a feature shared with most transforming economies). The specific ones are that Croatia is a 'country in between' because it is undergoing the process of EU integration (where it is behind the economies of the Eastern and First Southeaster expansion but ahead of others), it is not a star transformation performer (thus sharing features with other laggards), it has undergone a second (third?) transformation (a fate very likely ahead or just beginning in some other transformation economies) and geography (it straddles the divides of the Mediterranean, Central Europe and the Balkans). All these reasons make the Croatian experience more relevant.

The paper is organized into five sections. The first discusses the relevance of entrepreneurship, the entrepreneur and the transformation and thus provides deals with the relevance of the later study. The second section defines entrepreneurship and provides a survey of its standard measurements. The third section discusses the possible notions meaning and implications of the entrepreneurial deficit. The next two sections apply the discussion of the first two to Croatia and in this way provide a case study of post-socialist transformation generated entrepreneurship in Croatia. Thus, the fourth section discusses the entrepreneurship generation during Croatia's transformation and the fifth section whether there is an entrepreneurial deficit in Croatia. Since it establishes there is such a deficit it offers a measurement of the growth loss that such a deficit implies. The paper ends with a concluding section and a list of references.

1 ENTREPRENEURSHIP, THE ENTREPRENUR AND THE TRANSFORMATION

From the beginnings of the post-socialist transformations the entrepreneur as an individual and entrepreneurship generally were seen as the fundamental agents/forces behind the transformation.

This was the perception of both 'Western' economists, see for example Corbo et al 199, Blanchard 1997 or Lipton and Sachs 1991, as well as 'Eastern' ones or specialists for socialist economies, see for example Njavro and Franicevic 1990 for late 1980s views in former Yugoslavia; Tyson et al 1994; Brezinski and Fritsch 1996 or Kolodko 1999. Besides the expected economic benefits of entrepreneurs and entrepreneurship, all of the authors add expectations of social and political benefits too. This would be a result of the generated strengthened foundations and support for a market society, they would provide legitimacy to a new system and distribution of wealth and income.

This transformation and the entrepreneurship it generated was a process that started in the late eighties (in former Yugoslavia, with 1988 law on enterprises) or early nineties by which socialism was dismantled and replaced by capitalism. The entrepreneur was viewed as a catalyst for new capitalist profit oriented production relations that in turn generated the efficiency gains the new production method could offer, he would establish new *'de novo'* firms freed of the baggage of the old system that would dynamize the economy, he would introduce new technologies and be the agent of sectoral restructuring, etc. However, he was also viewed as the main source of growth that would neutralize the initial economic downturn (Blanchard 1993 claimed the new firms would completely 'mop up' the unemployment created by the labour shedding of socialist ones) and then lead to modern Economic Growth and ultimately real convergence. In short, the entrepreneur and his entrepreneurship were the actor and activity that would make the transformation a success. This initial optimism regarding entrepreneurs and entrepreneurship did not decrease in later analysis, for example the EBRD's "Transition Report 1999" in assessing the "Ten years of Transition" was quite explicit: "The importance of promoting the formation and growth of new enterprises and SME cannot be over-emphasized" (1999: 9)

Yet the transformation started with no (or very limited) entrepreneurial culture, no entrepreneurial awareness and put simply almost no entrepreneurs (especially in economies unlike Yugoslavia that applied central planning more rigorously). The analysts of socialist economies quite rightly pointed out that lack of market-based entrepreneurship, and benefits associated with it, was the central failure of socialist economies, whatever their form. State-entrepreneurship, even with considerable autonomy enjoyed by mangers in socially owned firms was too weak a substitute. Not only did the infamous 'soft budget constraint' lead to numerous non-viable firms but structural gap, i.e. 'socialist black hole' (see Vahčič 1990 and list of references therein) developed. Obviously, any attempt to transform these economies into modern capitalist regulated economies would have to generate and provide a fundamental role to entrepreneurs and entrepreneurship. While it was expected that typical Washington Consensus policies of liberalization and privatization would have dramatic positive impact on supply of entrepreneurship (by providing both 'pull' and 'push' opportunities) policies dealing with the deficits of entrepreneurs whose aim was to generate them by freeing 'animal spirits',, and help them survive and grow, had high priorities in all transformation economies. Optimism on both individual and social levels prevailed; institutional deficits and cultural legacies were largely considered secondary and certainly – manageable by reformist governments. (see Lipton and Sachs 1991)

As the transformation unfolded, not only did economists became aware that it was not taking the expected path but over time with the expanded Washington consensus, see Rodrik 2002 the importance of institutional dimension came to the forefront. The transformation was taking much longer than initially anticipated, the economic and social costs were higher, the political economy more complicated and implications for the moral economy highly controversial. (see Stiglitz 1999). The increase in entrepreneurship certainly did occur and it could be described as explosive. It went through the channels of the privatizations and the

reorganizations of existing firms and had a dramatic increase in new-firms' formation. However, not all expectations were fulfilled, and some issues for concern emerged. These occupied both experts' and public's minds. The discrepancy was blamed on the fact that during its first years the transformation it was taking place amid an environment of incomplete and imperfect institutions (an institutional deficit), with strong presence and impact of the legacies of the past (both formal and informal, i.e. cultural). What emerged was a 'nexus of enterprising individuals and valuable opportunities' (Shane 2003, 9) that were both Schumpeterian and Kirznerian, both productive and non-productive, both legal and illegal. These circumstances proved to be much more complex and contingent on the particular contexts than was recognized at the start of the transition.

The cause of the concern and discrepancy of optimistic expectations and real developments was that the fundamental restructuring process of the transformation, i.e. privatization of capital resources and the introduction of liberalized markets, took place under conditions of missing institutions and a lack of credible regulation. Such circumstances created many opportunities for rent seeking activities, informal and illegal entrepreneurship. As a result, the initial attention of entrepreneurs was, besides filling obvious gaps resulting from Kirznerian opportunities, concerned with rent seeking and with it, the pressures for policy and state capture leading eventually to weak states. This shift towards the recognition of the importance of institutions was in line with general shifts in the economic paradigm which started recognizing institutions (e.g. the quest for 'deep factors of growth') that in the transformation context were reflected with the movement from the so called 'Washington Consensus' (or 'First Washington Consensus') to the 'Expanded Washington Consensus (or the 'Second Washington Consensus'), see Stiglitz 1999 and Rodrick 2002.

The central role of the entrepreneurs and entrepreneurship during the transformation and the early post-transformation economies (certainly, the 12 new EU members are better described as post-transformation economies) has not disappeared in spite of fact that the role of institutions received a much more important place. Moreover, the EU accession processes encouraged adoption of a pro-entrepreneurship policy discourse, particularly in connection with strategic EU policy documents on entrepreneurship, SMEs and knowledge economy (e.g. Lisbon agenda)

Both Schumpeterian and Kirznerian entrepreneurs act self-interestedly, but it is the expected outcome of their efforts that will be welfare benefiting for the society at large. Yet, this may not come about. The first seed of doubt in recent times was sown by Baumol (1990), and in more generalized terms by North (1990, and related to transition 1997), but other authors too have taken up the theme of unproductive entrepreneurship and the unfavorable consequences of entrepreneurial talent when it goes into rent seeking. (see Lu 1994; Murphy et al., 1991; Sauka 2008; Aidis 2003). Until Baumol's and North's contributions "most studies have presumed, implicitly or explicitly, that productive entrepreneurship is the only form of the phenomenon" (Lu 1994, 5) The phenomenology of post-socialist transition only confirmed doubts on the unquestionably positive role of entrepreneurs and entrepreneurship. The more general critiques of 'rent seeking' and 'policy capture' were now joined with views by which entrepreneurs and their activity were being directly linked to bribes and widespread corruption, the criminalization of the economy and 'savage' or 'crony' capitalism, 'dirty' privatization and weak states, 'tycoonization' and 'oligarch'. All of these were also viewed as a result of entrepreneurial activity. Continuing with the economists' dismal view, this kind of activity had lasting negative effects and created a stable political economy, i.e. a 'bad equilibrium'; as Soltwedel (2000) argues that entrepreneurship itself is a path-dependent phenomenon. This also influenced policy makers, international organizations and international financial agencies, the IMF, WB and

EBRD and EC to give a more serious consideration to the institutional fundamentals, incentives and credibility of the 'rules of the game', and social capital in transformation economies (see Clague et al 1997; Stiglitz 1999; Raiser 1999)

In addition to these concerns, not everything seems rosy behind the impressive numbers of SMEs and rise of self-employment. There were high expectations related towards *de novo* created firms, in terms of their contribution to job creation and economic growth, and more generally in terms of creating a favorable entrepreneurial spirit and atmosphere. It is certainly true that newly established firms, mostly the SMEs, have "contributed significantly to overcoming transitional depression and then to recovery and fast growth" (Kolodko 1999, 2). However, it is also true that these firms in a number of countries failed to produce expected dynamics and welfare benefits. Particularly, they tend to be very small and mostly engaged in retail trade and services, much less in manufacturing. Being concerned primarily with survival most of them are hardly entrepreneurial and growth oriented. Barriers to SME development are also numerous - they are financial, regulatory, institutional and social ones. They affect both SME entry and growth. Particularly severe ones tend to be in transformation economies, and they concern not only entry but exit as well (Transition Report 1999; Bartlett and Bukvić 2000) and invite serious policy considerations and dilemmas.

Finally, restructuring of privatized firms did not bring expected benefits either. In many cases, the firms did not grow or provide new employment making the efficiency and other benefits of privatization smaller than expected. This was due not only to institutional deficits and corruption but also to the lack of capacities and entrepreneurial incentives.

It could be argued plausibly that such developments and barriers are hurting the potential contribution of entrepreneurs and entrepreneurship to economic growth. Thus over time, the transformation process has led to three issues regarding entrepreneurs and entrepreneurship. The *first* concerns their number, the sheer 'quantity' of entrepreneurs generated by the transformation, out of the pool of potential/latent entrepreneurs (typically, numbers of those who declare preference for self-employment over employment are much higher than numbers of those who undertake any action towards that, see Brixy et al. 2008). Given the initial very low-level how quickly did they emerge and from where were they recruited. If they are so important for the success of the transformation, were enough of them generated? The *second*, since entrepreneurs are individuals who have to be motivated to become entrepreneurs the development of the required characteristics and economy is important as well as the development of institutional/cultural setting. The *third* is a political economy issue that concerns the nature not so much of entrepreneurs as of entrepreneurship but to their possible role in sub-optimal or even negative outcomes of the transformation.

After almost 20 years of transforming (the process started in 1989 in what was then Yugoslavia and Poland), it may be possible to say something about these three aspects of transformation generated entrepreneurs and entrepreneurship and test this fascination with the role of the entrepreneurs and entrepreneurship in the transformation. A useful notion in testing this could be the notion of an entrepreneurial deficit. The deficit is a value measuring the difference ('deficit') or real amount of entrepreneurship and some equilibrium or benchmark value. This notion is clearly connected to the first (the 'quantity') and third (the characteristics) issue mentioned above. Due to the variety of transformation, initial conditions and outcomes it is still difficult to determine the deficit in various economies and the state of research prevents any comparative studies but in this article it will attempt it for Croatia. Croatia will thus be a case study and provide an idea of the use of the notion and the possibilities for its measurement.

2 DEFINING TERMS AND STANDARD MEASUREMENTS

Given entrepreneurs (and entrepreneurship's) universal central place and long time of study, it may seem strange that even today there is no consensus over the definition of entrepreneurs and entrepreneurship. Different definitions have been used by leading authors in the field (see Hebert and Link 1988 for detailed analyses of different theories and definitions in economic theory and Wennekers and Thurik 1999 or Sciascia and De Vita 2004 for a review of economic, managerial and non-economic concepts) and there are few attempts at synthesis (Hebert and Link 1988 and 1989; also Casson 1982; Wennekers and Thurik 1999). In addition, entrepreneurship research branched in a number of established branches of research (from ethnic entrepreneurship, gender entrepreneurship, social entrepreneurship, corporate entrepreneurship to self-employment, SMEs and 'high-impact' entrepreneurship) that led to specific definitions (see Acs 2008, for example).

Some examples of this variety are given by the different definitions given below. *Hébert and Link* tried to incorporate the essential ideas of risk, uncertainty, innovation, perception and change and with that in mind proposed the following definition: "the entrepreneur is someone who specializes in taking responsibility for and making judgmental decisions that affect the location, form, and the use of goods, resources, or institutions" (1988, 155 and 1989, 47). Conceptual differences, inherent complexities and ambiguities, often force researchers to construct definitions that are at the same time meaningful (i.e. related to theory) and operational (i.e. amenable to empirical use in researching particular phenomena). *Shane* 2003, defines entrepreneurship as 'an activity that involves the discovery, evaluation and exploitation of opportunities to introduce new goods and services, ways of organizing, markets, processes, and raw materials through organizing efforts that previously had not existed' (Shane 2003, 4). *Wennekers and Thurik* when looking at the relation between entrepreneurship and growth stress two major roles of entrepreneurs. The first is 'new entry' and the second 'newness'. They provide the following definition: 'Entrepreneurship is the manifest ability and willingness of individuals, on their own, in teams, within and outside existing organizations, to: (i) perceive and create new economic opportunities (new products, new production methods, new organizational schemes and new product market combinations) and to (ii) introduce their ideas in the market, in the face of uncertainty and other obstacles, by making decisions on location, form and the use of resources and institutions.' (Wennekers and Thurik 1999, 33-34 and 46-47). However, when they attempt to measure the phenomena 'pragmatic distinctions' are needed. (ibid. 47). As Shane admitted, concerned his (above) conceptual definition: it is 'very difficult to operationalize in empirical research, instead operational definitions are required: two most often used are *new firm formation* and *self-employment* (Shane 2003, 5).

Even such respectable institutions as the OECD admit to have been using multiple definitions, see Ahmad and Seymour 2008a, 5) – typically following 'top-down approaches' (in connection with adopted theory) with little concern for measurement or reducing entrepreneurship to specific empirical measure with little concern for theory ('bottom-up approaches') (ibid. 5) However in two recent papers the OECD, Ahmad and Hoffman 2008 and Ahmad and Seymour 2008, seem to have set standards for a definition and measurement of entrepreneurs, entrepreneurial activity and entrepreneurship:
"*Entrepreneurs* are those persons (business owners) who seek to generate value, through the creation or expansion of economic activity, by identifying and exploiting new products, processes or markets. *Entrepreneurial activity* is the enterprising human action in pursuit of

the generation of value, through the creation or expansion of economic activity, by identifying and exploiting new products, processes or markets. *Entrepreneurship* is the phenomena associated with entrepreneurial activity". Ahmad and Seymur 2008, 14, Associated with these definitions is a framework for entrepreneurship indicators (in order to enable international comparisons) related to determinants of entrepreneurial performance and impact (i.e. 'value' created by entrepreneurs and/or entrepreneurship – from growth to employment or other social/policy goods/objectives) (Ahmad and Hoffmann 2008, 9-11)

The importance of the OECD definitions is that it draws attention to three aspects of entrepreneurship and entrepreneurs that are extremely important in a transformation context (and hence Croatian discussed in greater detail below):

1. *Entrepreneurs are individuals.* Thus, entrepreneurship is an activity of individuals (by themselves or in teams) by which they decide to embark on. Wisely, the OECD definition avoids the debate whether individuals involved in entrepreneurship must have a special package of traits. Without entering the debate from the transformation, viewpoint two aspects of this individualist approach seem important. The first is that entrepreneurs are different, that they do have some common characteristics that set them aside form the rest of the population. The three that stand out are their: approach to control, attitude to risk and love of independence. The second is that as individual entrepreneurs and entrepreneurship can be viewed as a social resource pool that can but need not be mobilized for entrepreneurship. A further implication of the latter is that policies can influence the size of the pool. By changing the institutional setting, they can determine the size of the resource pool and whether this resource is mobilized for entrepreneurship or other economic activities or even left idle. In addition to the above another important difference is that the LFS data and indices derived from it, includes only manifested and not intended actions (e.g. only actual entrepreneurs and not the intentions of some to become entrepreneurs).

2. *Entrepreneurs can be found everywhere in the business community and their activity is not limited to any special kind of business establishment.* Entrepreneurs can be present in large firms like modern corporations and the infamous SME's or micro establishments in which they are self-employed. Entrepreneurs can be in new firms that have recently started up as well as in old established ones that are re-inventing themselves. There is no one kind of business establishment special to entrepreneurs even though some sectors have been identified as more 'entrepreneurship prone', see Audretch 2007. Given the later comments on measurement it is worth noting that in the case of small firms they need not without exception be entrepreneurial and among the self-employed, there can be many non-entrepreneurial individuals

3. *Entrepreneurs create value.* This has two important implications. First, not every value creation is a result of entrepreneurial activity. Indeed not every expansion of economic activity by identifying and exploiting new products, processes or markets needs to be a result of entrepreneurial activity. The second implication is especially important in all economies that have not achieved Modern Regulated Capitalism or are undergoing accelerated structural change (which makes them 'unsettled' and not necessarily in equilibrium). This makes them very important for transforming economies. However, by stressing that the creation of 'value is inherent to entrepreneurship the OECD framework has ruled out a kind of activity that has following Baumols 1990 article been called 'unproductive entrepreneurship' and that has recently been receiving a lot of attention. While certainly entrepreneurship is and should rightly be associated with creating 'goods' i.e. 'value' (and thus interesting for the policy-

maker concerned with growth, employment or alleviating poverty and social exclusion), it may also be associated with 'bads' and as such be a target of policy intervention – post-socialist experience strongly attest to that too.

While the OECD definition is intuitively, clear it makes it just as difficult to quantify the number of entrepreneurs and amount of entrepreneurship in the economy as older definitions had done. This yet again points to the need of pragmatic choices among potentially numerous indicators implied by different definitions that are related to research topics and/or policy objectives (e.g. increase in employment through encouraging entrepreneurship). The fact that entrepreneurial activity appears everywhere in the economy, it was quite quickly realized, makes it measurable only indirectly. It also became immediately obvious that proxy variables were needed. These are variables which themselves are not the same as entrepreneurs but which, it is thought, have a close relationship to entrepreneurship and entrepreneurs. While not being able to measure the levels like the number of entrepreneurs and amount of entrepreneurship in the economy (unless one assumes fixed proportions) they could be used to indicate changes over time. Various authors have used different variables (or sets of variables) but increasingly the field in limiting itself to four measures that are most frequently used. They have become standard ones even though the most recent OECD 'framework' proposes a wider list; see Ahmad and Hoffmann 2008. Two of them refer to firm architecture and concern the share of self-employment and SME's in the economy. These two measures dominate the research. The remaining two are linked to firm demography and concern business start-ups (birth rates) or survival rates of young firms. In all four cases, it is assumed the variables are directly proportional to entrepreneurship. Obviously, each of these measures catches some aspect of entrepreneurship and entrepreneurs but none catch all. For example, none of them refer to the especially important entrepreneurship of management/employees in established large firms and each of the variables can be under strong 'non-entrepreneurial' influences. An additional problem to measurement by proxy variables is that the chosen variables for entrepreneurship have also been used as proxy variables for other things; for example, self-employment is used as a proxy for entrepreneurship and the unofficial economy.

Probably an important element in the selection of definitions in addition to data availability was often led by policy maker's priorities. The most readily available data are the publicly collected statistics on self-employment and SME's and recently on firm birth rates. Another public source or valuable data that influenced the choice of measurement is the Labour Force Survey offering data on self-employment. However, a lot of the research is not based on public data and uses instead data generated by special surveys. While some of this data, like the GEM, see Singer et al. 2007, or the BEEPS firm survey see OECD 2003a and EBRD 2004 are well established many surveys are one-off events aimed at small segments of entrepreneurship. They do provide valuable information about the chosen aspect of entrepreneurship and entrepreneurs but they also make generalizations and comparisons difficult.

Even assuming the measurement problem is solved there are other reasons that make comparisons of entrepreneurship both over time and among economies difficult. Among the difficulties, three seem especially important. *The first* results from the idea stressed by Wennekers and Thurik 1999 who differentiate (i) between self-employed entrepreneurs and intrapreneurs (employees), and (ii) among the self-employed they differentiate between 'real' entrepreneurs (i.e.-. Schumpeterian ones) and 'managerial business owners who are entrepreneurs only in a 'formal' sense (while useful they are not engines of innovation and

creative destruction). Next, *there is* the 'U' shaped relationship of self-employment and economic development, with 'an unknown but probably relatively modest share of Schumpeterian entrepreneurs' ('real entrepreneurs') also following U-shape but not necessarily at the same rate in different economies. (ibid. 48; also in Acs et al. 1994) Should such a 'U' shaped relationship exist it would make comparisons extremely difficult, especially since the cultural variables is so important. *The third* is that there is no doubt that institutional frameworks and dynamics of institutional change (associated with stages of development) play an important role not only in determining the extent of in entrepreneurship and entrepreneurs but in the size of the proxy variable. In addition, comparing institutional frameworks at such a general level requires much more research than is presently available. This is certainly one of the main shortcomings of GEM based rankings (as often used in Croatia when showing 'progress') when all countries all collapsed in the same bundle in spite of in many respects obvious differences. In addition, counting 'real' entrepreneurs would 'necessitate further conceptual development taking into account personal capabilities and wide array of behavioral aspects' – again only approximations are available and declarations on subjective intentions (a la GEM) may be misleading. Counting ex post (by performance), on the other hand fails to identify those in 'economic core' (as Kirchoff 1994 put it) which, in spite of being really entrepreneurial – for some reason failed to grow or even survive, i.e. those which may be of greatest interest for policy makers.

In addition to these most commonly, used measures there are many others mentioned in the literature. Some are designed by authors for a particular purpose and did not achieve wider acceptance while others became used more widely. Some of the later are derived from notions such as entrepreneurial capital (an interesting concept but when measured end up being subsumed in human capital), knowledge filters (where entrepreneurs are the main lever for overcoming the knowledge barriers), knowledge spillovers (where entrepreneurs lead to positive externalities), etc. Again, all have intuitively interesting and useful meanings but measuring them is very difficult or impossible.

Taking into account of the above considerations in this paper, we shall primarily rely on self-employment data and attempt (at least approximately) to give some notion of extent of real entrepreneurship, and possible lack of it, i.e. deficit. One reason for such a choice was availability (more below) and another was comparability: as Acs et al. 2005 point out 'it is the only measure available for cross-country, multi-year analysis of entrepreneurship', so it became the 'standard' one. (2005, 8)

3 THE NOTION OF THE ENTREPRENEURIAL DEFICIT

Given the importance of entrepreneurship and entrepreneurs and many attempts to measure them naturally leads comparisons of the 'real' (actual) level against some other values. The latter can be some notion of an equilibrium amount of entrepreneurship and entrepreneurs or in a less strict sense, an *ad hoc* chosen benchmark values. Once equilibrium or benchmark values can be defined and real ones measured the path is open to measuring a deficit or surplus. The notion of a deficit or surplus is connected to the difference of two values and usually has a negative connotation in the sense that too much (a surplus) or too little (a deficit) entrepreneurship is considered bad.

In the literature, there are many attempts to compare entrepreneurship and entrepreneurs in different economies but only three approaches that use a notion of an equilibrium or benchmark. The first resulted from BEEPS studies. Even though they routinely find there is

not enough entrepreneurs their research occasionally points to problems associated with surplus values – e.g. too much of self-employment, too much of new entry as potentially wasteful and/or harmful. (see Carlin et al. 2001 based on BEEPS studies). The second attempt is the one made by Carree et al. 2007 who argue that 'growth penalty' is much higher for negative than for positive values. The third is Verheul et al. 2001 attempt to model supply and demand sides of entrepreneurship leading towards distinction between 'actual' and 'equilibrium' rates of entrepreneurship. Along these lines are the arguments put forward by Acs et al. 1994 and those taking their line that there is a 'U' shaped curve of entrepreneurship during development.

As always when dealing with entrepreneurs and entrepreneurship an intuitively clear idea with a lot of analytical potential has major definitional and measurement problems. Conceptional issues are then more serious with regard to the choosing a benchmark or defining an equilibrium value against which the deficit is measured. Various criteria can be chosen. In a growth and transformation context, three come to mind:
- *An equilibrium amount of entrepreneurship*. This implies that for a given set of conditions there is a certain equilibrium amount of entrepreneurship. Wennekers and Thurik (1999, 48) following other authors Acs et al (1994) argue that the equilibrium follows a 'U' shaped trend. As development progress' there is a first a fall and then a rise in equilibrium entrepreneurship and self-employment. Due to the 'U' shape makes comparisons difficult and measuring deficits for values derived from different stages in development erroneous. The equilibrium value could further be refined if the influence of institutional factors is included. While making it conceptually more correct the ambiguities of measuring institutions in relationship to an equilibrium amount of entrepreneurship it would it virtually impossible to measure.
- *A policy targeted amount of entrepreneurship* where the benchmark values are simply the policy targeted levels of entrepreneurship. Obviously, this is an *ad hoc* benchmark and its use is derived from the realistic values of the policy goals themselves. Here the deficit measures the difference between targeted levels and actual levels and can be interpreted as a measure of policy efficiency.
- *Underlying amount of entrepreneurship as a resource supply*. When defining entrepreneurship in spite of all its complexities the personal characteristics have an important role and they define, for given conditions, the maximum amount of available entrepreneurship against which the actual level and its shortfall could be measured. This would be akin to X-efficiency, i.e. untapped and unused resources due to an economic/institutional inefficiency.
- *Ad hoc benchmarks*. An *ad hoc* set of countries are chosen and from them benchmark values derived. The shortfall (or surplus) of real values is then measured against this benchmark. The choice of economies for the benchmark is usually based on some intuitive notion if development (and in a sense providing future values), geographical proximity or some other notion researches find relevant.

Regarding measurement the first two and fourth notion of a deficit or surplus do not pose more than the usual problems of measuring entrepreneurship and entrepreneurs discussed above. Regarding the third, a measure of latent entrepreneurship as a resource would require the measurement of the resource pool. The entrepreneurship resource pool is probably not fixed and varies with conditions, including policy and cyclical effects. This is because of the importance of political economy conditions in determining the incentives of individuals to become entrepreneurs. Probably this is unmeasurable (a demographic measure comes to mind thereby a 'typical' entrepreneur could be identified, or typology of entrepreneurs developed, and then seen how many of them are not mobilized). Here difficulties emerge both in measuring the real amount of entrepreneurship as in measuring the resource pool available.

Regarding the actual amount of entrepreneurship, the ambiguity follows from two notions that are being increasingly discussed in the literature. *The first* concerns entrepreneurship as a resource that may remain untapped. Conditions, institutional and others determining the incentives to become entrepreneurs may be such that the individuals with entrepreneurial capabilities simply do not become entrepreneurs: they have alternatives; they face barriers that influence their decisions and/or survival. The measurement issue is to what extent should unrealized intent be measured as real entrepreneurship. *The second* is the variety of kinds of entrepreneurship. It is recognized now that entrepreneurs and entrepreneurship comes in many forms and not all of them are considered positive, e.g. it can be destructive or unproductive as in Baumol (1990; see Lu 1994; Sauka 2008). This would imply that not all existing entrepreneurship contributes to growth or value creation; indeed some forms can be detrimental and have a negative effect. Therefore, ideally, one should distinguish the total amount of entrepreneurship from productive or growth oriented entrepreneurship. Some authors follow this notion and use it to distinguish 'real entrepreneurship' and attempt to measure it. However, they do not compare or contrast it against other forms, see Winnekers and Roy (1999).

In this paper, the measurement issue was determined by the data source, namely the possibilities afforded by GEM and LFS. The LFS allows the measurement of entrepreneurs based on employment status and reduces it to self-employment. GEM provides a more elastic approach because a questionnaire allows for more information about the entrepreneur. However, both have their limitations that are discussed in later sections

4 ENTREPRENEURSHIP GENERATION DURING CROATIA'S TRANSFORMATION

As mentioned in the introduction Croatia will provide a case study to discuss some of the aspects of the complex interrelationships of entrepreneurs, entrepreneurship and the course of the transformation.

It has already been discussed that even if the definition of entrepreneurs and entrepreneurship are agreed the issues of measurement are far from resolved since the choice of a proxy variable remains. In the case of the possible candidates for proxy variables in the Croatian case, they could be derived from five different sources. Three of them can be considered 'official', the fourth 'semi-official' and the fifth as 'private' *The first* are the administrative registers of businesses that are collected and made public by the courts. As of 2007 in addition to providing the number and category of registered firms, they also provide data on new registrations and thus enable an analysis of firm churning. *The second* are the yearly financial statements of business collected by the state owned financial Agency, FINA. They have data at firm level over time for income, profits, wages and employment. However, only a small amount of aggregate data is made public and even though they are a public agency, they make unpublished data available at prices that include their monopoly position (making it prohibitively expensive for research purposes). *The third* data source is the regular general Labour Force Survey (LFS) conducted by the State Statistical Office in accordance with the ILO/EUROSTAT questionnaire and made public in various publications. This database has selected data on employment, incomes, demographics and households. The micro data is available in specialized research institutes. *The fourth* source is the data collected for the needs of the World Bank or EBRD and made available to them for later use or through the Global Enterprise Monitor, GEM. It can be described as semi-official since it is financed and

conducted with strong state support but primarily for use outside the country. *The fifth* data source is 'private' because it is conducted for specified research or commercial purposes and often the information on entrepreneurship comes as a by-product. In the latter case, there are problems of data quality and comparability.

The most easily accessible (and hence most commonly used, not only in Croatia) proxy variable for the amount and change of entrepreneurs and entrepreneurship is self-employment. In the Croatian case, statistical indicators of self-employment can be derived from the first four data sources but the two most comprehensive and accessible are the LFS and GEM. To enable comparisons we will use the simple approach suggested by the GEM. In accordance with the GEM classification, all registered business owners are considered as self-employed regardless whether they employ any workers and regardless of the size of their workforce. The used definitions here is slightly more restrictive than the GEM one since data from the LFS cannot take into account the persons currently intending/trying to start a new business (some of the "nascent entrepreneurs" in the terminology of the GEM).

Both the LFS and GEM allow the measurement of the amount of self-employment as defined above in the economy. However, they can also be used to describe the characteristics of the 'typical Croatian entrepreneur' to be drawn and, perhaps most interestingly comparison of these results. Importantly, they allow for comparisons between *intentions (GEM) and actual* (LFS, business registration) developments over time (as done by Acs et al. 2008 when comparing GEM dataset with the World Bank Entrepreneurship Survey based on registration data). Since both data sets are collected in numerous countries through the same questionnaire, they allow for international comparisons.

GEM country surveys were conducted in Croatia yearly from 2002 onwards (for 2007 only basic indexes are still available and the main results were published in the project report, see Singer et al. 2003 Singer et al. 2006 and Singer et al 2007. They mostly portray a rather grim, however – recently improving, picture of entrepreneurial activity regarding quantity. They are few in number. GEM country study also provides information on the profile of the 'typical' Croatian entrepreneurs. Their dominant motivation to become an entrepreneur is 'necessity' and not vision so 'push' so that 'push' factors dominate 'pull' factors. New entrepreneurs are mostly mid-aged as about a third of them recently coming from the 35-44 age group, while in the previous surveys younger persons from the 25-34 age group were more important. Differences in entrepreneurship according to gender appear to be large and rising as there were almost 4 times as many men in the group of new entrepreneurs than women The data is provided in Table 1. The data also shows a major improvement of the basic TEA index in 2006. While this may be a result of some major still unknown change in the economy, it may also be under the influence of a change in the way data was collected. Until 2005, it was collected through person-to-person interviews and after that through telephone interviews. The same GEM survey is conducted in many countries (countries join the program voluntarily). In comparative terms, Croatia scored poorly and ranked low on the measures of entrepreneurial activity for most of the observed period, with some recent improvements. Even more worrisome, GEM indicates that Croatian entrepreneurs are pushed into self-employment due to lack of other job options as they proclaim necessity to be their principal motivation for starting-up a business more frequently than it is the case of other observed countries. Furthermore, GEM indicates a dismal performance of entrepreneurs with less than half of the start-ups surviving the first couple of years, probably as a result of flawed motivation for setting up the business. The number of entrepreneurs increased recently in all Croatian regions with stronger growth recorded in lagging regions thus bringing all of the

regions closer to the national average and reducing regional differences to a rather low level. However, motives for starting-up a business diverged amongst regions with necessity predominating in economically more backward regions

Table 1 The extent of entrepreneurial activity in Croatia according to GEM						
		2002	2003	2004	2005	2006
TEA	Croatia	3.62	2.56	3.74	6.11	8.58
	Av. GEM					9.45
	Cro rank	32/37	29/30	29/34	19/35	18/42
"Mature" entrepreneurs	Croatia	3.36	2.55	2.15	3.65	4.12
	Av. GEM					6.97
	Cro rank					33/42
Survival rate	Croatia	0.93	1.00	0.58	0.6	0.48
	Av. GEM	0.87	0.79	0.92	0.92	0.81
	Cro rank					35/42
Motive	Croatia	2.3	2.9	1.3	0.9	1.2
	Av. GEM				5.9	2.9
	Cro rank				35/35	41/42
- TEA: Total Entrepreneurial Activity Index: Ratio of individuals trying to start business and with active firm not older than 42 months to total population, number of entrepreneurially active per 100 of population						
- Survival rate: ratio of TEA index for 'mature' entrepreneurs (activity over 42 months) to TEA index for beginners + new						
- 'Mature entrepreneurs' are those whose business is more than 42 month old						
- Motive: the Ratio of TEA opportunity to TEA necessity						
Source: National GEM reports, various years						

When comparing the Croatian 'entrepreneur' with the average entrepreneur in the GEM world there are some stark differences. The Croatian 'typical' GEM entrepreneur has a secondary education while in 'GEM world' he has an university education. In Croatia, the male dominance is higher than in 'GEM world'. The typical Croatian GEM entrepreneur is older and comes from the 35-44 age bracket while in the 'GEM world' he comes from the 25-34 bracket and his income is lower while in 'GEM world' upper income brackets. Very importantly, he enters entrepreneurship motivated by necessity and not as in 'GEM world' by opportunity and finally he has very low links to world while in the 'GEM world' his activities are often export driven. The results of the GEM project quite clearly "The profile of entrepreneurs with less than 42 months of entrepreneurial activity in Croatia differs from the same group of entrepreneurs in GEM countries by all criteria (education, sex, income)…" (GEM, 2005, p: 35).

LFS data, besides providing data on actual rates of self-employment and cannot be used to evaluate intentions (which the GEM data can). In spite of this, it can be used to supplement the GEM results with additional information on entrepreneurs. In addition, GEM findings can simultaneously be verified against LFS data that is usually considered to be a reliable source of labour market information. Labour force survey data is a bi-annual households survey

collected since 1998 from around 20.000 respondents (in 1996 and 1997 yearly surveys were made). The survey was revised in 2001 (telephone interviews replaced person-to-person interviews, the questionnaire was expanded to around 100 questions and database for the sample was revised which raised the non-response rate to above 15% (and lately close to 20%). This no response rate is not unusual for these kinds of household surveys but if the experience of other surveys is exhibited here they may very likely bias the results (it has been shown the no response is higher in higher income brackets and likely the successfully SE are there). Of course, use of the LFS data to study self-employment and by implication entrepreneurs and entrepreneurship has important limitations. The, LFS is not designed to deal specifically with such a complex and multifaceted phenomenon as self-employment or entrepreneurship. For example, LFS data does not provide a great deal of information on some important, often subjective, features of self-employment such as the motivation to become self-employed. Because the LFS sample is rotated (i.e. each time different individuals are included in the sample) great care must be used when LFS data is used for inter-temporal comparisons. In order to avoid problems arising from the differences in estimates of the total population between waves if of the LFS, making direct comparisons of the number of self-employed is pointless. All values will be shown as ratios rather than absolute numbers. This strategy will enable us to extract trends underlying the data.

Given all of the described shortcomings, the use of the LSF for our purposes still has several major advantages. The LFS has much larger sample size than any of the specialized survey (about 20.000 thousand respondents). Since 1998, it has been conducted regularly on a semi-annual basis. Using ILO/EUROSTAT definitions in its questionnaire, it permits international comparability. Since 2004 when the questionnaire was last revised, it has around 100 questions covering not only employment but also demographics. Finally, in countries where there is a sizeable informal activity, such as in Croatia, LFS is typically a more comprehensive source of data than the administrative ones.

The employment structure according to the LFS was rather stable with employees comprising about three-quarters of total employment and self-employment share slightly decreasing over the 1998-2005 period. The changes are shown in Table 2. The slight decrease of the self-employment rate is a result of the fall of the male specific self-employment rate thus narrowing the gender gap in self-employment rates. With the male self-employment rate approximately double the size of the self-employment rate for the females; this gap appears to be much narrower in Croatia than suggested by the GEM study.

Table 2 Self-employment according to one's employment status 1998-2005

Status in employment	1998	1999	2000	2001	2002	2003	2004	2005
Self-employed business owners	8,0%	8,1%	8,3%	8,0%	7,7%	7,3%	7,4%	7,5%
Self-employed w/o registered business	2,0%	2,2%	3,3%	2,6%	2,8%	2,6%	2,3%	2,7%
Farmer on own farm	8,5%	8,9%	6,8%	8,9%	8,5%	10,5%	11,2%	12,4%
Unpaid family worker*	6,2%	5,7%	4,6%	4,8%	4,6%	3,8%	2,7%	2,4%
Employees	*75,3%*	*75,2%*	*77,1%*	*75,7%*	*76,4%*	*75,8%*	*76,5%*	*75,1%*

Source: CBS LFS authors calculations made
Note:*i.e. helping family members

The LFS includes data on self-employment that can be disaggregated in a couple of useful ways (by age, number of employed by self-employed owner and sector). Total self-employment rate[1] fell from over 8% in the 1998-2000 period to 7.5% in 2003 in 2002 and recovering only slightly since then, thus contrasting the evidence presented by the GEM. It is interesting to observe the breakdown of business owners between firms and crafts. Self-employment rates can be recalculated using the working age population as a denominator in order to harmonize the indicator with the one used in GEM. Self-employment indicator calculated in such a way fluctuated between 4.5% and 4% over the observed period, not diverging too far from the level of GEM entrepreneurship indicators until 2005, when the gap expanded significantly. LFS data therefore warrant neither the level nor the growing trend of the self-employment indicated by the Croatian GEM study. Only large numbers of nascent entrepreneurs in 2005 and 2006 that have not yet managed to set-up a firm or a craft can explain such a large difference between the two indicators, although this type of entrepreneurship should materialize over a span of several months rather than years if GEM based indicators are considered reliable.

Table 3: Characteristics of 'average' self-employed person in Croatia derived from LFS

	1998	2002	2006 (2005)
Dominant age group among SE b/o	35-44 (10.0% out of 6)	45-54 (10.2% out of 6)	45-54 (9.9% out of 6)
Av year of exper. in emplo. SE b/o	18	15.5	17.5
Dominant year of exp. in SE b/o	4-5 (17.0)	6-9 (11.3)	10-14 (13.7%)

SE b/o…Self-employed business owner
Source: unpublished micro data LFS, authors calculations

The LFS confirms most of the characteristics of the 'typical' GEM entrepreneurs. LFS confirms rapid aging of the entrepreneurs in Croatia with self-employment rates shrinking for those aged less than 45 and increasing for those over that age. Median age of the self-employed persons simultaneously increased from 34 in 1998 to 38 in 2005. Self-employed business owners on average accumulated more years of working experience and actually were the only group of the employed persons with significantly increasing average experience over the observed period. Self-employed are on average somewhat better educated than the employees in general as they mostly come from the ranks of the persons with at least some secondary and tertiary education. Hourly wages of the self-employed business owners continuously lagged behind those of the employees, both in the state in private sector. However, self-employed reported on average more hours of work which made up for the difference when monthly income is concerned. In addition, it is possible that the problem of under-reporting is more germane for self-employed or that some of the income is formally declared as profits for tax reasons. Despite having only slightly more years of the overall experience than employees, self-employed business owners were significantly more experienced when acceding into their present position. About three-quarters of the self-employed business owners were recruited from the ranks of the employees with about fifth of them starting a business out of unemployment or inactivity.

However, there is one major difference. As described above, one of the most important findings of the GEM study is on the predominance of necessity as a motive for starting-up a

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[1] Self-employment rates are calculated as a ratio of self-employed business owners to total employment.

business and low survival rate of new businesses indicating that self-employment in Croatia is a "survivalist" strategy linked to poor prospects of finding a decent job. From the LFS results, we do not have the means to distinguish between different motives for starting a business, but there are several questions that can provide guidance on the possible prevalence of "push" factors ("necessity") over the "pull" factors ("opportunity") when starting and operating a business. Some of those questions include information on job history, previous activity/status in employment, wages and attitudes towards personal well-being and aspirations to change a job. This may indicate less innovation and growth capacity of the small businesses, but it can also mean that employment patterns of the self-employed persons became more stable and subject to less uncertainty thus fostering "pull or "opportunity" motives for starting a business. Data on job experience lend support to the thesis that there are few business failures amongst the self-employed and that survival rates are high. This raises suspicion regarding the evidence from the GEM studies of the growing importance of "necessity" motives or "push" factors

The share of self-employed with short tenures, e.g. less than a year, in total number of self-employed can be considered as a good approximation of the number of new establishments. This ratio oscillated around the 5-6% interval until 2006 when it jumped over 7%. This means that there was one new establishment in 2005 for each 13 operating businesses. The change marks a strong increase from an average of 1 new to 17 existing businesses for an earlier period. The share of self-employed business owners with tenures up to three years in total self-employment can proxy for the survival rate of the start-up entrepreneurs in the GEM study. While GEM study reports as much start-ups as mature enterprises, this share of start-ups according to the LFS fell from about one-sixth in 1998 to about one-tenth of the total in 2005. If accessions into the self-employment were few, the level of self-employment remained stable and more of the self-employed moved into groups with longer tenures, thus increasing their average tenure, outflows from the self-employment were probably negligible as well suggesting high survival rate of the start-ups, contrary to findings of the GEM study.

Comparison of average tenures confirms increasing stability of the self-employment. Those persons constitute the only group whose average tenure significantly increased over the observed period, from 7 to about 10 years, thus preventing the overall average tenure from falling. Moreover, only one-tenth of the previously self-employed persons claims to have stopped working for business related reason (firm closure etc.), which is less that the same share for persons who previously were employees (about 15%). This reinforces the argument that separations of the self-employed business owners do not happen often due to business failure.

Finally, job satisfaction is an important aspect of entrepreneurs and entrepreneurship. The LFS data provides an insight. We observe the extent to which business owners are looking for a new job. If self-employment were indeed an inferior status to which business owners have been pushed out of necessity, one would expect them to look eagerly for a new job. However, only a few of the self-employed are looking for a new job and this share has been constantly shrinking over the observed period, falling to about 4% in 2005 (including self-employed business owners looking for an additional job to their primary activity). At the same time, as much as a tenth of the employees were eager to change their job in 2005, down from about 17% in 1998. Finally, we observe the financial situation as perceived by the heads of the households. It has to be kept in mind that the responses of the employees and self-employed business owners who headed a household are observed without any control for the structure of the household, but this is a useful piece of information nevertheless. While both perceived

financial situation of the households headed by self-employed business owners and by employees improved over the observed period, self-employed perceive a greater improvement so their perceptions became even more favorable.

It was mentioned above that in contrast to GEM the LFS allows a sectoral and employment breakdown of the self-employed. This is extremely useful since not all self-employed need to be entrepreneurs at the same time. In a middle-income economy such as Croatia that still has a large agricultural sector dominated by peasant production this is especially important. Even though they may and some undoubtedly are entrepreneurially inclined, it is highly unlikely that peasants are entrepreneurs. Furthermore, for historical reasons many self-employed do not employ anyone but themselves.

5 IS THERE AN ENTERPENEURSIAL DEFICIT IN CROATIA

Then two data sources, i.e. GEM and LFS, provide a coherent picture of the nature of the entrepreneur generated by Croatia's post-socialist transformation. Given the notion of a deficit that was developed above it is interesting to attempt to estimate the level of entrepreneurship in Croatia against some notion of an equilibrium and thereby determine whether there is an entrepreneurial deficit in Croatia or not.

As discussed previously, conclusions from the literature on entrepreneurship and growth are inconclusive, mostly stemming from differences in measurement and methodology used. In this paper, we use a basic approach proposed by Carree et al. 2003 and 2007 and van Stel et al. 2007 in order to determine the link between entrepreneurship and growth. It uses non-agricultural self-employment rate as a proxy variable for entrepreneurship. This approach has been subject to criticisms in the literature (Salgado-Banda, 2005; Acs and Amoros, 2008), especially its application for developing countries where the necessity may dominate over opportunity as a motive for business start-ups.

However, this approach introduces a novelty in the form of looking at deviations from the estimated "equilibrium" rather than the absolute level of entrepreneurship itself. The central idea of the approach is that there is an optimal, or "equilibrium" level of entrepreneurship for a country that depends on its development level. This "equilibrium" level of entrepreneurship may also stand for an optimal organization structure of the economy, or the extent of competition. The notion allows for the determination of an 'entrepreneurship growth penalty'. This potential growth penalty depends on the divergence of entrepreneurship levels from this "equilibrium" level. Therefore, the proposed relationship between the entrepreneurship and growth is not a simple linear relationship as in most of the literature suggests. Rather than adopting "the more, the better" approach, it looks at the entrepreneurial deficits and surpluses (and as it is shown in the latter work that the importance of the two do not necessarily have to be a of symmetrical nature, van Stel et. al. 2007). Such an approach has a particular appeal because it allows estimating the extent of entrepreneurial deficit/surplus.

The account in previous sections pointed to numerous shortcomings (or deficits) of Croatian entrepreneurship, particularly when looking into trends and profiles of self-employed, both according to LFS and GEM data. GEM data in particular points to a "necessity" as a motive for starting a business indicating lack of available alternatives and dominance of push factors into the self-employment. This is also reflected by low survival rates of business start-ups according to GEM. LFS data point to more stable patterns of self-employment. However, although self-employed seem like an established and well-off group, one of the most striking

feature of LFS data is a fairly low inflow into self-employment as, on average, less than 5% of the self-employed had a tenure less than one year.

The starting point for the empirical estimate of the link between entrepreneurship and growth is a three-equation model. The first equation defines the "equilibrium" rate of self-employment as a simple function of GDP per capita. Two different functional forms are tested, quadratic and inverse. The first tests for the "U-type" relationship and the second for the "L-type" relationship between the self-employment rate and the level of economic development. Both types of empirical relationship were considered in the literature[2]. They assume that rising incomes also increase opportunity cost of self-employment and divert entrepreneurs into paid employment, thus reducing the self-employment rate at early stages of economic development. However, while "L-type" relationship presumes that these forces continue to operate indefinitely, "U-type" relationship assumes that at some point in the development process forces adding to the entrepreneurship prevail. The level of development can be related to many of the forces potentially beneficial to self-employment. They concern factors such as emergence of new technologies that may reduce the importance of scale economies, the advent of the services sector that is particularly conducive to self-employment, or simply the possibility for employees to pursue personal goals, such as more independence brought by self-employment and the possibility of better aligning work with personal life[3].

The two equations representing the "U-type" and "L-type" relationships are the following:

(1) $SE_{it}^* = a_0 + a_1 * GDPpc_{it} + a_2 * GDPpc_{it}^2$, and

(2) $SE_{it}^* = a_0 - a_1 * GDPpc_{it} / (GDPpc_{it}+1)$,

where SE* stands for an "equilibrium" level of self-employment and GDPpc for GDP per capita, while $_i$ is a subscript denoting countries, and $_t$ is a time subscript.

The second is a simple growth equation. The second equation introduces the difference between the actual and "equilibrium" self-employment rates. The purpose of this equation is to test whether the divergence of self-employment from an "equilibrium" level gives rise to substandard growth performance:

(3) $G_{t-4} = b_0 + b_1 * (SE_{it-4}^* - SE_{it-4})pos + b_2 * (SE_{it-4}^* - SE_{it-4})neg + b_3 * GDPpc_{it-4}$,

where G stands real growth rate (cumulated over a period of 4 years in order to capture possible delayed effects), (SE* - SE)pos for entrepreneurial surplus (zero in case there is a deficit) and (E* - E)neg for entrepreneurial deficit (zero in case there is a surplus). Carre et. at. (2003, 2007) include both surplus and deficit in a regression with a lag of four years in order to capture the possible medium-term effects. The final equation explains changes of self-employment as a process of convergence towards the estimated "equilibrium":

(4) $SE_{it} - SE_{it-4} = c0 * c1 * (SE_{it-4}^* - SE_{it-4}) + c2 * (U_{it-6} - \underline{U}_{it-6}) + c3 * (LIQ_{it-6} - \underline{LIQ}_{it-6})$,

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[2] In addition to Carre et. al 2003, and 2007, a number of other studies, amongst others, observe similar "U-type" and "L-type" relationships, such as Pietrobelli, Rabellotti, and Aquilina 2004 and Acs and Amoros, 2008.
[3] In addition to these, there is a number of other forces, less dependent on income, that may add-up to the ascent of the entrepreneurship, such as deregulation and privatization or outsourcing induced by the growing integration of emerging economies into the global trade system.

where U and U̲ stand for unemployment rate and sample average, respectively, while LIQ and LIQ̲: labor income share and sample average, respectively (both with 6 years lag). While unemployment acts as a "push" factor into self-employment, high labor income share acts as a "pull" factor away from self-employment. Carree et. al. 2003 and 2007 substitute both equations used for the determination of "equilibrium" self-employment rates into the final equation in order to estimate the speed of convergence towards the "equilibrium" rate.

Although the spirit of the approach by Carre et al. 2003 and 2007 is followed in this paper, there are several deviations from it. First, we use a different set of countries for our estimates - data for 32 countries available from the Eurostat[4]. The main reason for the selection of this dataset is the inclusion of Central and Eastern European transition countries (including the Baltics), as those countries are mostly absent from the series from Entrepreneurs international Compendia used by Carree et al. 2003 and 2007, which are based on the OECD dataset. Usage of the Eurostat data also allows for probable better comparability across the countries. Eurostat data is compiled using the same methodology and based on the uniform questions used in the LFS questionnaires in all of the observed countries. Further on, in addition to using data on self-employment rate, in order to check the robustness of the result a separate set of equations is estimated using a more narrow proxy for entrepreneurship based only on employers, or those self-employed that employ other workers.

The period selected for this analysis is the 1998-2007 decade, which is somewhat shorter than the period used by van Stel et al. 2007, but required data are available for most of the countries during this period (including Croatia, although some of the gaps were filled using adjusted national data). Further on, we do not substitute the equations determining "equilibrium" self-employment rates into the equation estimating the speed of convergence. The main reason for this modification is our prior notion that we may operate with two different sets of countries – matured market economies and transition countries where entrepreneurship is less developed. Therefore, equations determining the "equilibrium" level of self-employment were estimated using only the sample of mature market economies, while growth equations were estimated using the full sample, including transition countries as well. The final point of our departure from the presented model is omission of the final equation, on self-employment growth, because we lack some of the data (e.g. data on labor income). In addition to this, in case of transition countries, a more complex set of factors than those in mature economies their self-employment rates may be at work. Therefore, instead of this equation, we look at stylized data on convergence towards the estimated "equilibrium" pattern.

The following variables were used in the regressions:
1. SE – self-employment rate in industry and services (NACE sectors C-K, without agriculture and public administration),
2. SE* - "equilibrium" self- employment rate in industry and services (estimated by the regressions),
3. GDP – GDP per capita level, in thousands of euros at constant 2000 prices, adjusted for PPS terms,
4. G – growth rate of real GDP,
5. CG – cumulative growth rate of real GDP over a specified period,
6. Dummy Italy, Dummy Greece – dummy variables for Italy and Greece.

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[4] These are mostly countries belonging to the European economic area.

First, a model of "equilibrium" self-employment was estimated. The model was estimated using only data for mature market economies (a total of 21 countries), using average values of the observed variables for the 1998–2007 period[5]. Data for transition economies (11 countries) were not included in the estimation, as their inclusion would distort the relationship due to unusually low levels of self-employment in those countries. Instead, fitted values from the regression were used in order to derive implied "equilibrium" rates of self-employment in transition countries. Both "U-shape" and "L-shape" equations were estimated in order to test for different possible relationships between self-employment and development. Dummy variables were introduced for Italy and Greece, which have exceptionally high self-employment rates[6]. Results obtained are presented in the following tables:

Table 4: Results for equations on "equilibrium" shares of self-employed and employers

	Total self-employment		Employers only	
	"U" shape	"L" shape	"U" shape	"L" shape
Constant	35.7*	207.6*	25.0*	159.5*
	(4.6)	(37.8)	(3.4)	(27.9)
GDP	-1.3*		-1.0*	
	(0.3)		(0.2)	
GDP^2 (*100)	1.5**		1.2**	
	(0.6)		(0.4)	
GDP/(GDP+1)		-202.7*		-158.4*
		(39.5)		(29.2)
Dummy Italy	13.5*	14.1*	6.8**	7.2**
	(3.2)	(3.4)	(2.4)	(2.5)
Dummy Greece	14.0*	15.6*	10.2*	11.4*
	(3.3)	(3.4)	(2.5)	(2.5)
Minimum	7.3		3.1	
- reached at	43.5		43.3	
Asymptote		4.9		1.1
R-squared	0.83	0.79	0.81	0.78
Adjusted R-squared	0.79	0.76	0.77	0.74
Number of observations	21	21	21	21

Notes: standard errors in parentheses; * denotes significance at 1% level, ** denotes significance at 5% level

Similarly, to van Stel et al. (2007), both estimated models show similar pattern of "equilibrium" self-employment with only minor points of departure. The minimum in the "U-shape" curve is somewhat higher than the asymptotic value for the "L-shape" curve, while the "L-shape" curve falls more steeply, but otherwise the two coincide to a large extent. Therefore, estimated levels of "disequilibria" in self-employment according to both equations

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[5] Sample includes Austria, Belgium, Switzerland, Cyprus, Germany, Spain, Finland, France, Greece, Ireland, Iceland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Sweden, Turkey and United Kingdom. For some of the countries missing observations were dropped and averages were calculated using shorter time periods.
[6] Carre et. al 2002 discusses Italian experience in detail and concludes that Italy has developed an autonomous rise in the number of business owners when compared to other countries at a similar stage of economic development.

are highly correlated, but the "U-shape" relationship is more linear than the "L-shape" relationship resulting in less dispersed estimates of "disequilibria".

Figures: Actual and "equilibrium" self-employment rates and ratio of employers to total employment (in %) in relation to GDP per capita level (in thousands of EUR), averages for the 1998-2007 period
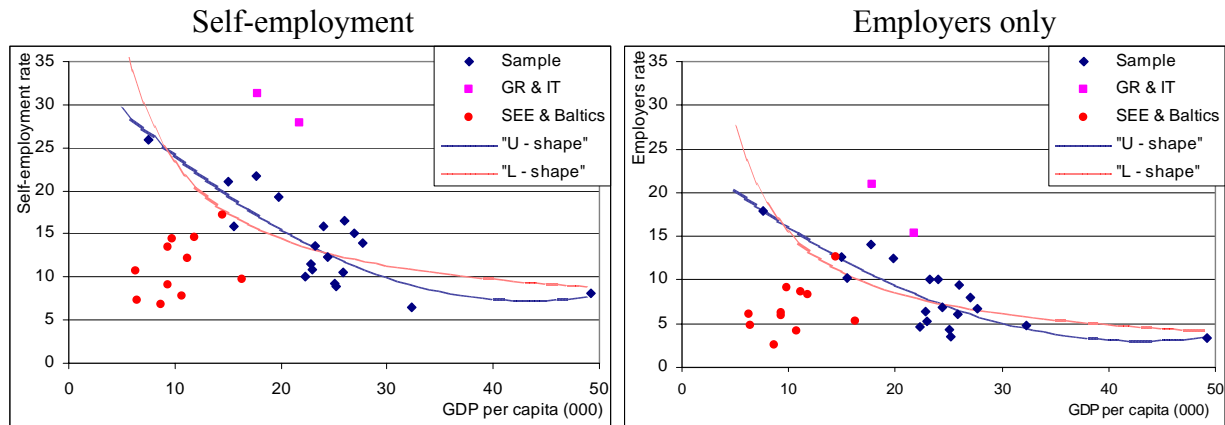
Source: Eurostat

From the estimated relationships, "equilibrium" self-employment rates for Central and Eastern European countries were derived. As income levels of the mature economies used in the sample mostly exceed those in transition countries, "equilibrium" levels for transition countries were extrapolated from the estimated regressions. However, there is some overlap between lower income mature economies (Malta and Cyprus primarily) and higher income transition countries. In addition, inclusion of another low-income country (Turkey) into the regression anchored the estimated relationship and prevented the extrapolated part of the relationship from drifting too high. It appears that in this framework all transition countries have significant "entrepreneurial deficits", except for the Czech Republic, which has reached about its potential. In addition, it appears that Croatia has not diverged much with respect to estimated deficit from the sample mean, regardless of the method used.

In the second phase, an equation relating real growth with GDP level and entrepreneurial deficit is estimated. In addition to the entrepreneurial deficit and surplus, GDP level was included in the regression to account for the effects of income convergence. Since the two do not encompass all possible growth factors, regressions were estimated using the fixed effects that should capture the remaining heterogeneity between the countries. Further, on, because not all of the influences of entrepreneurial activity on growth are visible immediately, Carree et al. 2003 and 2007 introduce four-year lag between real growth and the independent variables (GDP level and the level of self-employment). Introduction of a lag between the growth rate and estimates of the entrepreneurship deficit/surplus should also address the issue of possible reverse causality between entrepreneurship and growth. Several lag sizes were tested and results did not change much with increasing the size of the lag, so the equation with three lags (GDP growth rate was cumulated over a period of three years) was used as it allows accounting for possible cumulated effects of entrepreneurship while leaving a fair number of observations (1998, 2001, 2004, 2007). White coefficient covariance estimates were computed that are robust to arbitrary within cross-section residual correlation. In the following tables, results are presented for both previously described definitions of "entrepreneurial deficit":

Table 5: Estimates of the contemporaneous effects of entrepreneurship on growth (1 year lag)

	Total self-employment		Employers only	
	"U" shape	"L" shape	"U" shape	"L" shape
Constant	11.5*	11.4*	10.5*	11.0*
	(1.59)	(1.39)	(1.40)	(1.40)
Surplus	-0.29	-0.14	-0.02	0.08
	(0.21)	(0.27)	(0.09)	(0.14)
Deficit	0.71*	0.57*	0.84*	0.70*
	(0.09)	(0.09)	(0.14)	(0.10)
GDP	-0.18*	-0.22*	-0.18*	-0.24*
	(0.07)	(0.05)	(0.06)	(0.06)
R-squared	0.64	0.66	0.64	0.66
Adjusted R-squared	0.59	0.62	0.59	0.62
Number of observations	294	294	290	290

Notes: standard errors in parentheses; * denotes significance at 1% level, ** denotes significance at 5% level

Table 6: Estimates of the cumulative effects of entrepreneurship on growth (3 years lag)

	Total self-employment		Employers only	
	"U" shape	"L" shape	"U" shape	"L" shape
Constant	38.6*	35.9*	36.1*	36.2*
	(7.13)	(4.24)	(8.07)	(3.43)
Surplus	-1.22*	-0.73*	-0.18	-0.04
	(0.45)	(0.19)	(0.26)	(0.18)
Deficit	2.06*	1.88*	2.49*	2.41*
	(0.45)	(0.26)	(0.71)	(0.29)
GDP	-0.74**	-0.68*	-0.78**	-0.80*
	(0.31)	(0.22)	(0.34)	(0.19)
R-squared	0.80	0.84	0.80	0.85
Adjusted R-squared	0.71	0.76	0.71	0.78
Number of observations	105	105	103	103

Notes: standard errors in parentheses; * denotes significance at 1% level, ** denotes significance at 5% level

Results of both equations are in agreement with prior expectations as parameters on GDP level and entrepreneurial deficit are of the correct sign and significant, while those on entrepreneurial surplus are only occasionally significant and of a lesser magnitude[7]. While there seems to be no discernible influence of entrepreneurial surplus on economic growth, the entrepreneurial deficit does seem to induce a growth penalty.

A final point of interest is raised by the figure of the dynamics of convergence of the self-employment rates towards their "equilibrium" levels. Obviously, it can take several paths – through higher self-employment rates, higher economic growth, or any combination of the two. However, as the following figure suggests, two groups of transition countries clearly

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[7] "Surplus" variable is included with a positive sign in the equations, therefore a negative parameter denotes a negative effect on growth. The opposite is the case with the "deficit" variable, so a positive parameter can be interpreted as an indication of negative effect on growth as it enters the equations with a minus sign.

emerge. The first group is comprised of countries with both higher self-employment growth and faster GDP growth. It includes Baltic countries (Latvia as a marginal case with stagnating self-employment, but nevertheless fast growth), Romania and Slovakia (which had exceptional growth of self-employment, but somewhat less spectacular economic growth). The second group, with stagnating or even declining self-employment rate and significantly lower average growth contains Bulgaria, Croatia, Czech Republic, Hungary, Poland, and Slovenia. Average The average reduction of the entrepreneurial deficit in the first group (11.8 percentage points according to the estimastes based on the "L-type" curve and 7.4 percentage points according to the estimates based on the"U-type" curve) amounts to about three times the reduction of entrepreneurial deficit in the second group (4 and 2.3 percentage points, respectively). This pattern also lends additional support to the finding that higher self-employment rates, or lower entrepreneurial deficits, tend to go hand in hand with faster economic growth in transition countries.

Figure: Cumulative real GDP per capita growth (in %) and change of self-employment rate (2000-2007 period)
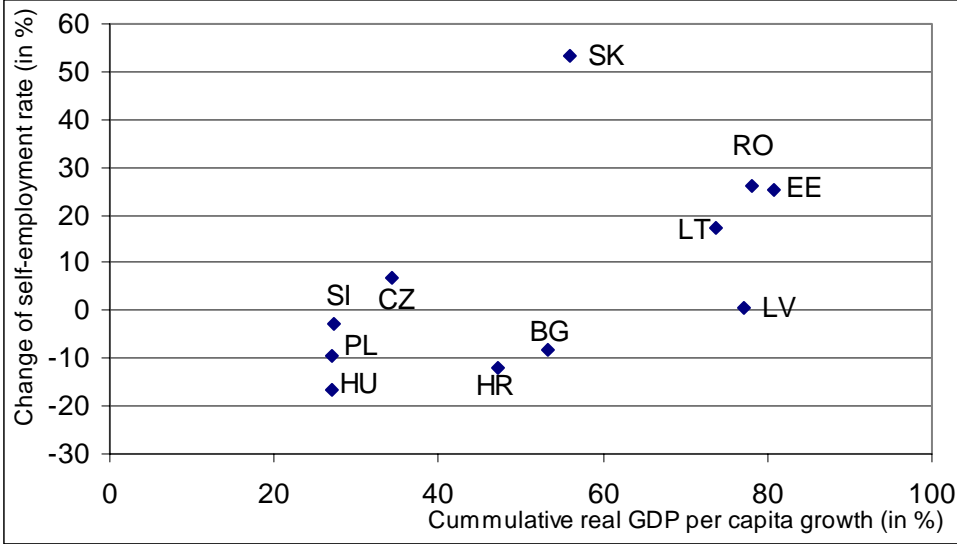
The analysis suggests that Croatia, along with some other Central and Eastern European countries, performs poorly in terms of entrepreneurship. This poor performance is reflected in a significant deficit in terms of the quantity of entrepreneurship. Moreover, this deficit is likely to weaken the growth performance of individual economies when compared to the best performers. The stagnation of the self-employment rate they are experiencing and the still fairly low inflows into the self-employment did not change much over the recent period.

6 POLICY IMPLICATIONS

Transformation generated reforms opened a large space and opportunities for entrepreneurs and entrepreneurship. They did this both through privatization and restructuring and through new entry via new firms. In both respects, the changes were dramatic. Furthermore, all transformation countries were strongly advised, and often conditioned by IFIs, to develop polices and institutions to encourage and foster entrepreneurship. This was especially true in the 1990s when policies and institutions were focused on promoting SMEs creation and development and self-employment. (Croatia's experience is discussed in Bartlett and Franicevic 2002 and Bartlett and Cuckovic 2007). Rationale behind these policies was to increase the supply of entrepreneurship (thus implying an actual 'deficit') and by increasing

employment to reduce unemployment. They tried to achieve this through different policy measures and programs. Yet, as the transformation unfolded the process of understanding this deficit became increasingly more nuanced sop that it increasingly included the institutional and qualitative dimension. With the developing of the awareness of the complexities involved, the policies themselves will be seen as controversial thus opening an issue of 'policy deficits' too. These are the topics on which the paper will be focused on when considering the case of Croatia.

6.A. SME POLICY OVERVIEW

Not surprisingly, entrepreneurship policies in 1990s (systematically since 1995; first major program of SME support started in 1997) were focused on SMEs and self-employment. The chosen policies were low-cost financing coupled with subsidized consultancy services with a view on job-creation effects (see Bartlett and Franičević 1999; Franicevic and Bartlett 2002; Čučković and Bartlett 2007). Arguably, more important than programs a direct effect was its 'considerable mobilization and structure of SME support on both county and local levels'. However, the implementation problems were (besides the lack of real services and SME support infrastructure) in two areas. The first was the field of incentives that lead to risk-shifting, rent-seeking and implicit targeting. The second concerned the bureaucratic nature of the program that were without proper evaluation; lack of co-ordination; deficits in abilities and competencies (Franicevic and Bartlett 2002, 292-293).

With the 2000s and the opening of Croatia's EU accession path that included formal negotiations, there was an 'Europeization of SME policies' (see Čučković and Bartlett 2007). Croatia endorsed the European Charter for Small Enterprises in 2003 that was itself in line with the EU policy stress on SMEs and Lisbon Agenda. In spite of SME support remaining central to the policy, a broader understanding emerged that recognized the new issues and complementarities in defined entrepreneurship policies. This was particularly true in connection with comparatively low competitiveness. The low competitiveness was at the national, sectoral and firm level. It was characterized by dismally low exports; low R&D activities, including knowledge transfers; low innovativeness of SMEs; and deficits in skills, including managerial/entrepreneurial ones; under-developed financial infrastructure; and presence of considerable 'doing-business' barriers. A more detailed analysis is provided in Franicevic 2005. The more complex approach led to an evolution of policies that was in line with demands to increase competitiveness levels. Programs dealing with above issues were introduced (e.g. HITRA Program for Innovative Technological Development; IRCRO, KONKRO and others concerned with innovation and technological upgrade). However, these new policies are still modest and not ambitious enough (Bartlett and Čučković 2007). The policy focus is still on SMEs and aimed to increase new entry. These are reasonable goals when considering the comparatively low density of business sector (see OECD 2003 and EBRD 2004; it is considerably lower than EU 15 but also than front-running post-socialist economies) and, even with recent improvements, comparatively low firm formation rate (Čučković and Bartlett 2007, 5). Certainly, 'entry barriers are being lowered and improvements in the business environment are reducing barriers both to SME growth' (Bartlett and Cuckovic 2007, 15), and entrepreneurship in general. Yet, the authors warn, 'the quality of new firms created is just as important if not more so than the quantity. Thus the removal of impediments to the expansion and growth of new enterprises is often much more decisive for the creation of a competitive enterprise sector. But these policies are at the same time more difficult to deal with as they addresses a complex structural problem than the removal of the mere administrative barriers to the creation of the new enterprises (ibid, 5; also

see Bartlett and Bukvič 2002) or of setting-up subsidized credit lines and business zones for start-ups.

Recent analyses of the SME policy framework points to the fact that Croatian governments have taken a more 'pro-active approach'. This has resulted with comparatively (particularly in relation to SEE countries) 'well-developed and diversified institutional support structure for the development of the SME sector on national, regional and local levels' (Cuckovic and Bartlett, 8). A more complex approach is also noticeable. This approach includes new strategic goals. Reflecting this the EC 2007 Progress Report notices that 'good progress has been made in the field of the business environment and notably on various aspects of SME policy… it has put in place a comprehensive and promising SME policy and support framework' (EC 2007, 45). For example, the Government's 2004 Incentive Programs for SME stressed the development of new entrepreneurial zones, goals of increasing sectoral/firms' competitiveness, the strengthening of export capabilities, networking and clustering, knowledge transfers; education and training; but self-employment of particular groups – women, youth and war veterans. The 2008 Incentive Programs for SME clearly recognizes the problems and barriers facing potentially high-growth firms, academic entrepreneurship, competitiveness and export capabilities of SMEs; policies are devised along major strategic goals which include strengthening competitiveness capabilities, balanced regional development, raising the quality of entrepreneurship infrastructure, decreasing administrative barriers, enhancing entrepreneurial climate in the society. (MINIGORP 2008).[8]

However, in spite of these improvements both conceptual and operational problems remain. In spite of entrepreneurship still being associated primarily with SMEs (including crafts; e.g. in RC 2007 as 'the major area of intervention under the regional competitiveness sub-component is the SME sector', RC 2007, 18)) it is welcome addition that policy makers are expanding the scope. They now recognize some of the involved synergies and complementarities (such as knowledge transfers, clustering, sub-contracting, FDI; R&D policies; VET) as well as the weaknesses. The 2007-2013 Strategic Coherence Framework identified the central issues as the relatively low level of entrepreneurial activity and education of entrepreneurs, inadequate level of cooperation between the business sector and academic community, lack of financial instruments adapted to SME needs and insufficient institutional support for their development (RC 2007, 18 and 30).

The 2007 OECD-LEED report on entrepreneurship policies in Croatia, while pointing that 'high growth SMEs are widely recognized as key actors in developing innovation and job creation', and that 'good platform' for further policy development exists, points to some fundamental problems. Particularly, it is argued, 'the current approach shows an insufficient understanding of the structure and dynamics of the SME sector which makes the identification of SMEs with high growth potential difficult'. 'Moreover, the support system to enhance the growth of SMEs is mainly ('supply') driven by pre-determined programs largely funded by international donors without taking into consideration the specific needs of fast-growing SMEs. (i.e. by 'demand'). Coordination among different delivery agencies is still a weak point for Croatia where it generates overlap and confusion, and leads to underdevelopment of the synergies between different economic policies. The overall effectiveness of policies and programs would be improved through impact assessments' (OECD-LEED 2007, 131). The

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[8] While, in 2008 Operational plan enterprise zones are receivning 118 million kn (out of 351 total), and subsidies for loans' ineterst payments 58 million; programs associated with increasing competitiveness and innovation are receiving 78 million kn which shows interest in high growth sectors/firms, new technologies, knowledge transfer etc.; and exports oriented programme is receiving 18 million kn.

report rightly points to *four major gaps.* There is the *knowledge gap* thereby not enough is known about SME and enterprise base in general, studies are lacking, including industrial ones. Next there is an *evaluation gap* which makes policy makers are rather pleased with data on created jobs, delivered credits etc. but there is no proper evaluation of effects, costs and benefits is missing. In addition, there is a *co-ordination gap* because of which 'Croatia is still suffering from a low level of co-ordination and interaction between different actors and programs' (ibid., 132). Finally comes the *culture (i.e. social capital) gap* which points to the lack of entrepreneurial culture, the presence of socialist legacies, and unfavourable public perceptions of entrepreneurs (undermining its legitimacy) (ibid. 134).

In spite of a noticeable 'europeization' of SME policies and the institutional infrastructure for their implementation (Cuckovic and Bartlett 2007) resulting from very well informed and led by foreign consultancy and EU accession process, problems and policy deficits clearly remain – both in respect to entrepreneurship policies themselves, and in wider institutional 'rules of the game' with involved incentives' structures.

Concerning the first aspect it was found that 'the effectiveness of policy implementation' was questionable (ibid, 8). Concerning knowledge transfer, Bartlett and Cuckovic 2007, 15 noted that the transfer is still modest, spin-offs are rare, technology/innovation centers/parks and incubators' performance is poor; protection of intellectual property is weak. In addition, 'the administrative system is still too bureaucratic', numerous administrative barriers (in spite of some improvements) remain (e.g. concerning property register). The implementation of subsidized credit policy to SMEs still suffers from a lack of transparency and the burden of bureaucratic procedures, as well as risk-aversion (Cuckovic and Bartlett. 9-12); financial system is under-developed (lack of venture capital, business angels etc.) as is entrepreneurial culture and education (ibid., 17). To this, one should add legitimacy issues as well. The OECD-LEED report recommended seven areas. 1 improvement of the systematic collection and analysis of evidence. 2 enhancement of co-ordination and integration at national level. 3 incorporating regional and local perspectives into national strategies. 4 enhancing the connection and consistency between the aims and purpose of strategy, policy programs and projects. 5 achieving a clear and effective balance in the decentralization of authority and resources. 6 improving co-ordination and integration amongst regional and local agencies. 7 introduce a more systematic assessment and evaluation of policy interventions (Action space for strengthening entrepreneurship policy in Croatia; on www.oecd.org)

Concerning the second aspect, the policy focus, instead of dealing primarily with supply of entrepreneurship, should rather focus on its *allocation.* The inclusion of is warranted by presence of high incentives for rent-seeking, widespread corruption, low levels of the rule of law and judicial credibility. The policy should include theinfluencing opportunity costs of entrepreneurship and subjective perceptions of them. The presence of these unfavourable phenomena was shown by 2007 GEM study. The study showed they are among the highest among GEM countries, see Autio et al. 2008, 36, Table 3[9]. This in turn calls for labor market reforms, but education and R&D reforms as well, as tax reforms and other reforms aiming at individuals' incentives and their calculus of costs and benefits. In this, as section four shows, it has to be taken into account that motivations for self-employment are not necessarily and not even dominantly – entrepreneurial ones; among those with high preferences for self-employment numerous are those without entrepreneurial ambitions and capabilities.

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[9] While 30% among those non-entrepreneurially active (aged 18-64) perceived both opportunities (41%) *and capabilities* (56%), only 10% declared having entreprenurial intentions: among the highest gaps among GEM countries, and the highest among the post-socialist ones.

Differentiating them from those (also belonging to 'economic core' – Kirchoff 1994) who have a potential and motivation to grow, but are blocked in that by some sort of barrier that might be influenced by policy maker is certainly the most challenging task.

b. Particular policy recommendations following the paper's findings

Our findings in section four, dealing with profiles of Croatian entrepreneurs show that the average entrepreneur is quite old, which would seem to call both for more active policies tuned to younger, including specific youth entrepreneurship programs (see Bićanić 2008) and efforts aiming at increasing entrepreneurial culture through education and media. The importance of policies dealing with an increase of entrepreneurs' knowledge and expertise may be important (through VET, life long learning, consultancy services) follows from the educational profiles of Croatian entrepreneurs. In spite of their being somewhat higher than that of the employees' ones, they are still comparatively low. While in GEM countries dominate entrepreneurs with college/university degrees, in Croatia secondary education dominates – 67.6% in 2006 (Singer et al. 2007, 47). In view of the above discussion on the Croatian policy framework and in the light of current educational reforms (including encouraging LLL that is comparatively among the lowest in Europe) the following may be argued. In spite of the recognized need for clear policy documents, the real impact of existing programs is quite uncertain and capacities for radical improvements may be lacking. GEM data also point to considerable regional differences (but intra-regional differences abut which little is known may be important too). All this may provide a rational for a less centralized and more regionally/locally based policy design and implementation as well as for a better co-ordination, evaluation and benefits from learning spillovers.

The GEM findings on motivation in spite of recent increase in overall TEA and TEA opportunity show the following. Croatia is still on the bottom of GEM countries with regard to the motivation index[10]. It is low on growth expectations since HEA rate close to 0.5% put Croatia on the top of the group with lowest high-growth expectation rates[11]. It is on the bottom of the scale concerning international orientation (Autio et al. 2008, 39). There is a huge gap between opportunity perceptions and action really taken. This points to two policy directions: one concerns the incentives to take entrepreneurial action (in the face of alternatives) and the other concerns incentives and barriers for high-growth entrepreneurship (or 'high-impact' one as in Acs 2008). While 'high-growth/impact' entrepreneurship is certainly underdeveloped, and polices in this respect found deficient, particularly lacking are studies and research on industrial dynamics that would inform such policies. Lacking are also administrative capacities and capabilities to run such complex policies efficiently.

In Section 5, it was shown that there is exists a entrepreneurship deficit exists. This deficit affects growth (there is a growth penalty). If so, a favourable recommendation (in spite of some reservations concerning potentially negative effects of too much entry) should be made on policies which encourage self-employment and SMEs de-novo creation in general; which aim to reduce opportunity costs of entrepreneurship (i.e. self-employment) and affect allocation of talent towards entrepreneurship. This conclusion is further underlined by the

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[10] In the 2006 index (calculated as TEA opp/TEA nec) it was 1.16 (first year higher than 1) which ranked Croatia as 41st (only Brasil was behind) (Singer et al., 2007, 22). In 2007 TEA increase continued but 41% were pulled into early stage entreprenurial activity by improvement-driven opportunity which again puts Croatia close to the bottom. (Autio et al 2008, 19)
[11] HEA rate shows shares of those among new and nascent entreprenurs who expect to employ at least 20 people in five years' time, see Autio 2008, 25-26)

comparatively low density of business in Croatia as pointed above. However, even with this shift this does not mean that the general orientation of Croatian SME policies (including particular group's self-employment) has been largely correct. This is because in spite of the emerging preoccupation with high-impact entrepreneurship the implementation and evaluation deficits remain. Furthermore; it is unclear how much these policies have really impacted beneficiaries' decisions to enter, to self-employ and how much they have been simply – rents, appropriated with satisfaction but of no consequence for taken action (as pointed by Franicevic and Bartlett 2002).

Finally, it seems that the problems in this area cannot be simply reduced to traditional policy set-up dealing with SMEs in particular. What is needed is a broader policy framework capable of dealing with two major deficits:
- supply and allocation of entrepreneurship
- demand for entrepreneurship

Namely, besides problems concerning supply and allocation of entrepreneurship (as pointed above) there may be problems with pull factors too. They point to the lack of high-growth opportunities (or barriers to embark on them if present – e.g. lack of skills on labour markets), particularly those growth opportunities with high spillover effects (deficits of restructuring, lack of FDI in non-financial sectors, particularly in manufacturing) and low-levels of innovation and knowledge transfer from research institutes and universities. The OECD report rightly stresses a need to improve links between entrepreneurship (i.e. SME policies) with other policy areas – particularly R&D policies and FDI policies (OECD_LEED 2007, 136)

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